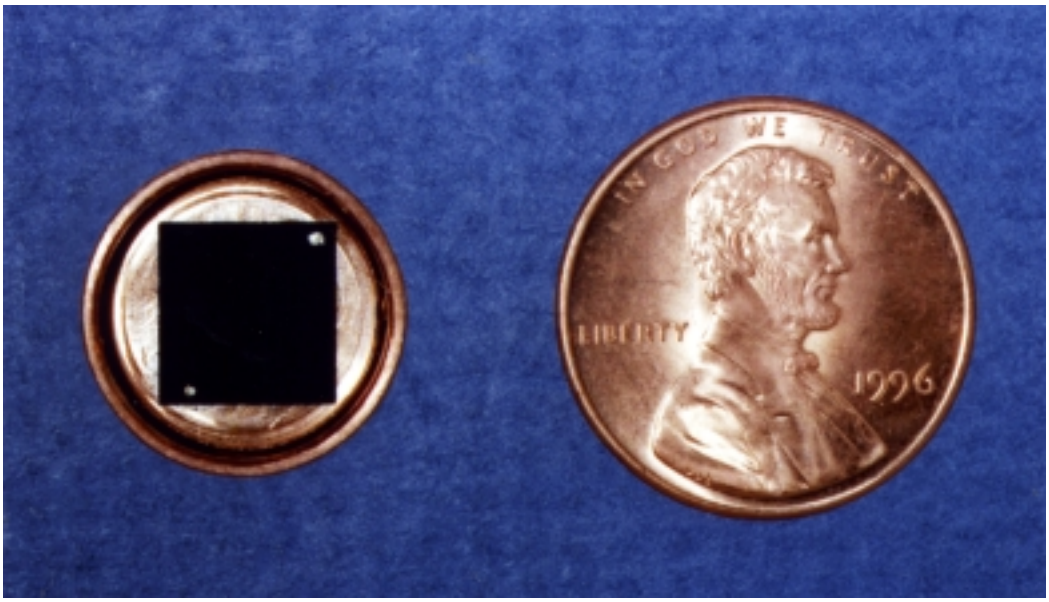
MULTIPLE QUANTUM WELL SPATIAL LIGHT MODULATOR FOR OPTICAL PROCESSING APPLICATIONS



The Naval Research Laboratory has developed a gallium arsenide based spatial light modulator for use in holographic and optical processing systems. This device operates faster and has higher spatial resolution than alternative technologies such as ferro-electric liquid crystals. This new design substantially reduces production cost by eliminating the need for post-growth etching or lapping and allows for large-area devices with excellent optical quality.

Selected device specifications:

- Speed: DC to1 MHz
- Sensitivity: 0.1 to 1 $\mu J/cm^2$
- Resolution: 7 μm @ –3 dB point
- Non-pixellated (fill factor 100%)
- Gray Scale Response
- Input Intensity Range: 10^{-5} to 1 W/cm^2
- Rugged and Stable Operation

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